

Garant

GARANT Master INOX solid carbide milling cutter with chip separators TPC, TiAlN, Ø f8 DC: 16mm



Order data

| | |
|--------------|---------------|
| Order number | 203119 16 |
| GTIN | 4062406783815 |
| Item class | 11Z |

Description

Version:

High-performance milling cutter with **irregular cutter spacing** and **irregular helical pitch**. **High process reliability** and **better chip evacuation** due to **increased flutes**. **Optimised carbide substrate** for **higher bending strength** and **extreme tool life**, even in stainless steels in the high-performance field, especially duplex. **Chip separator** positioned offset **at cutting edges**.

Advantage:

Lower pull-out forces due to reduced helix angle.

Note:

h_{max} : The values stated in the table are maximum values. For finishing operations we recommend items No. 204012, 204014, 204015, 204016, 204018 and 204019.

$a_{e,max} = 0.04 \times D$ for TPC machining.

Successor product for No. 203105 and No. 203108.

Technical description

| | |
|--|---------------|
| Corner chamfer width at 45° | 0.32 mm |
| Flute length L_c | 80 mm |
| Shank $\varnothing D_s$ | 16 mm |
| Average chip thickness h_{max} for TPC milling in INOX < 900 N/mm ² | 0.063 mm |
| Helix angle | 36 degrees |
| Balance quality with shank | G 2.5 with HB |

| | |
|---|----------------------------------|
| Shank | DIN 6535 HB to h6 |
| No. of teeth Z | 6 |
| Tolerance nominal \varnothing | e8 |
| Overall length L | 136 mm |
| Direction of infeed | horizontal, oblique and vertical |
| Cutting edge $\varnothing D_c$ | 16 mm |
| Corner chamfer angle | 45 degrees |
| Number of chip separators | 3 |
| Series | Master INOX |
| Coating | TiAlN |
| Tool material | Solid carbide |
| Standard | Manufacturer's standard |
| Type | N |
| Helix angle characteristic | unequal spacing |
| Spacing of the cutters | unequal spacing |
| Cutting width a_e for milling operation | $0.04 \times D$ |
| Through-coolant | no |
| Machining strategy | TPC |
| Colour ring | blue |
| Type of product | End / face mill |

User data

| | Suitability | V_c | ISO code |
|-------------------------------|---|-----------|----------|
| Steel < 500 N/mm ² | Suitable only under restricted conditions | 270 m/min | P |
| Steel < 750 N/mm ² | Suitable only under restricted conditions | 240 m/min | P |
| Steel < 900 N/mm ² | Suitable only under restricted conditions | 210 m/min | P |

| | | | |
|--------------------------------|---|-----------|---|
| Steel < 1100 N/mm ² | Suitable only under restricted conditions | 160 m/min | P |
| INOX < 900 N/mm ² | suitable | 200 m/min | M |
| INOX > 900 N/mm ² | suitable | 140 m/min | M |
| Ti > 850 N/mm ² | suitable | 100 m/min | S |
| wet maximum | suitable | | |
| wet minimum | Suitable only under restricted conditions | | |
| Air | suitable | | |